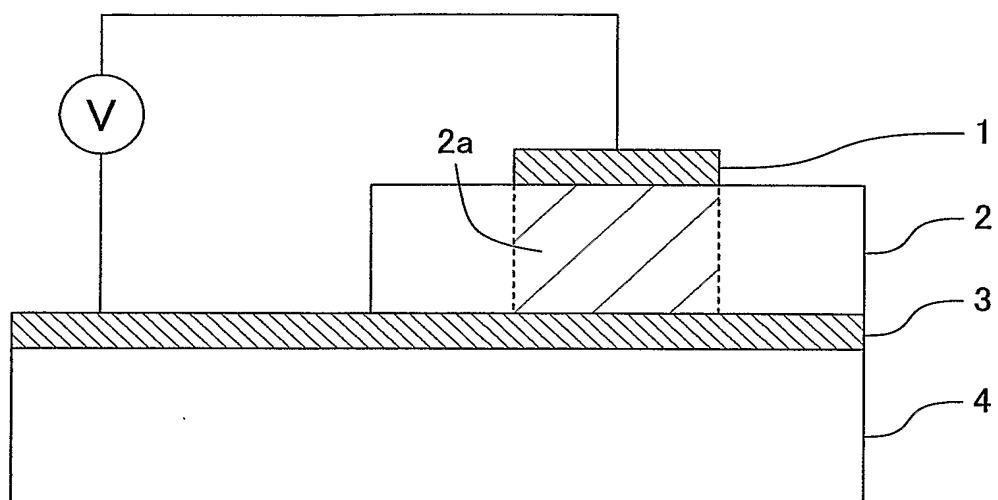


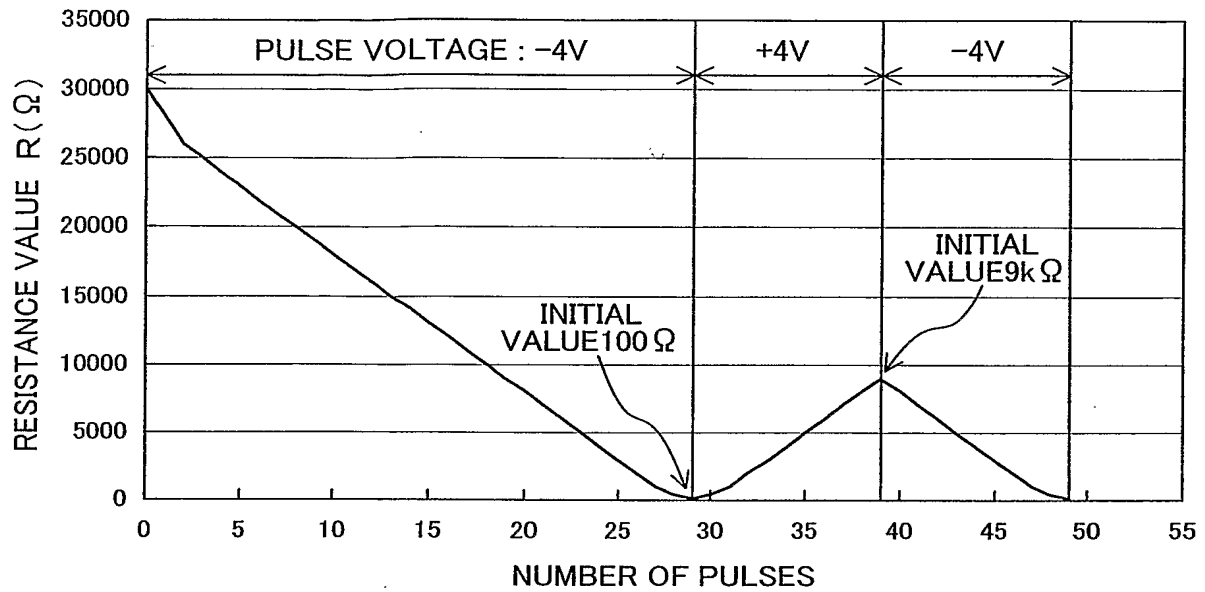
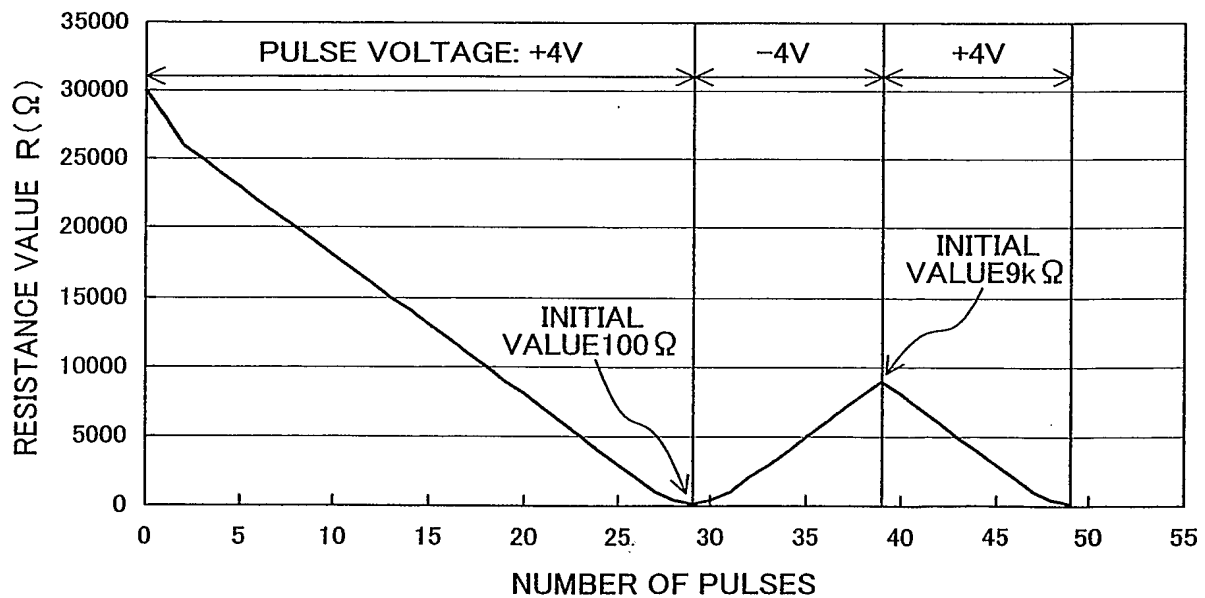
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FIG. 1



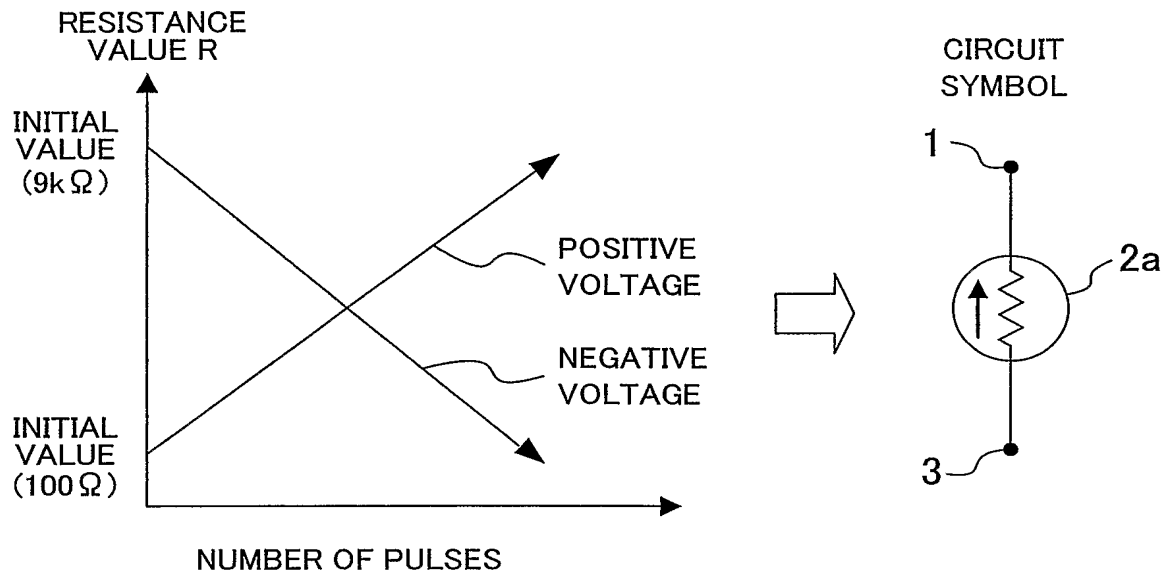
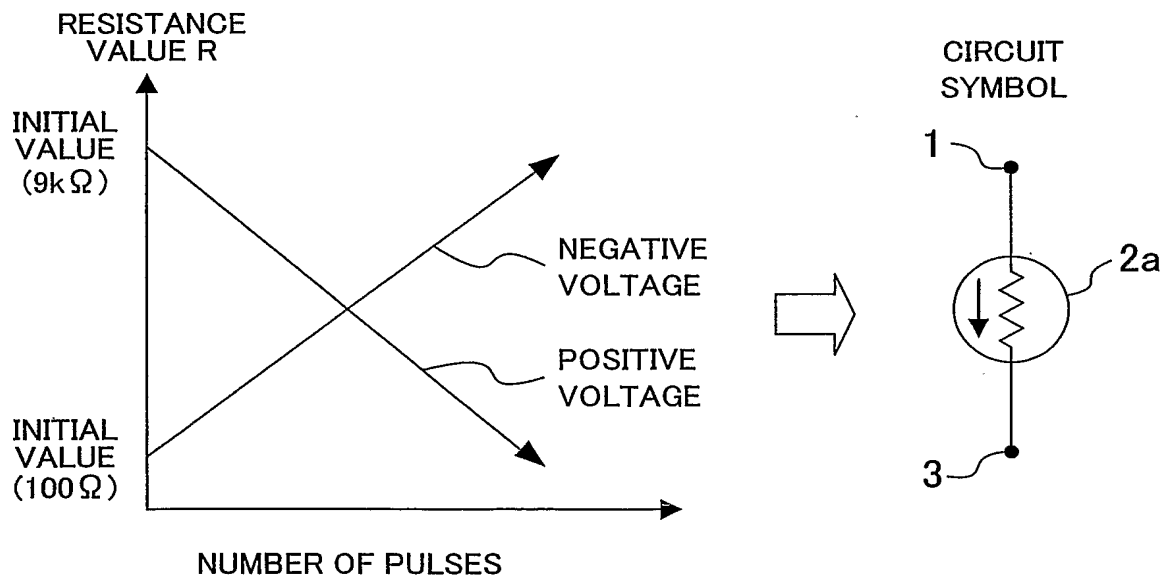
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FIG. 2

(a) VARIABLE RESISTOR  $\alpha$ (b) VARIABLE RESISTOR  $\beta$ 

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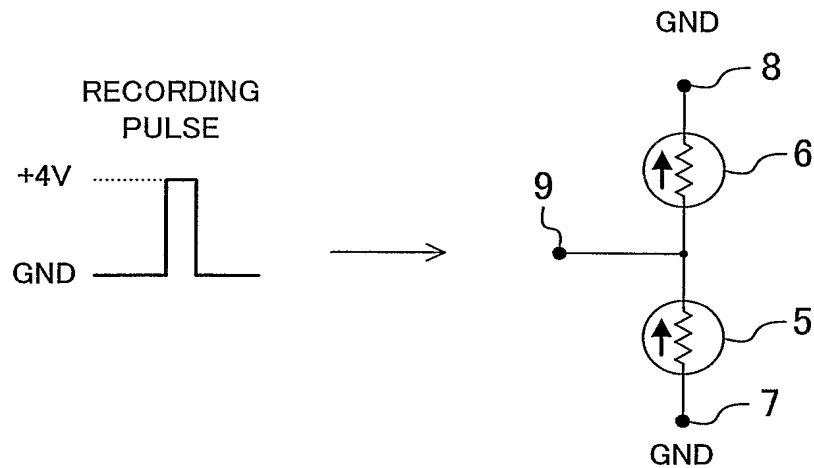
FIG. 3

(a) VARIABLE RESISTOR  $\alpha$ (b) VARIABLE RESISTOR  $\beta$ 

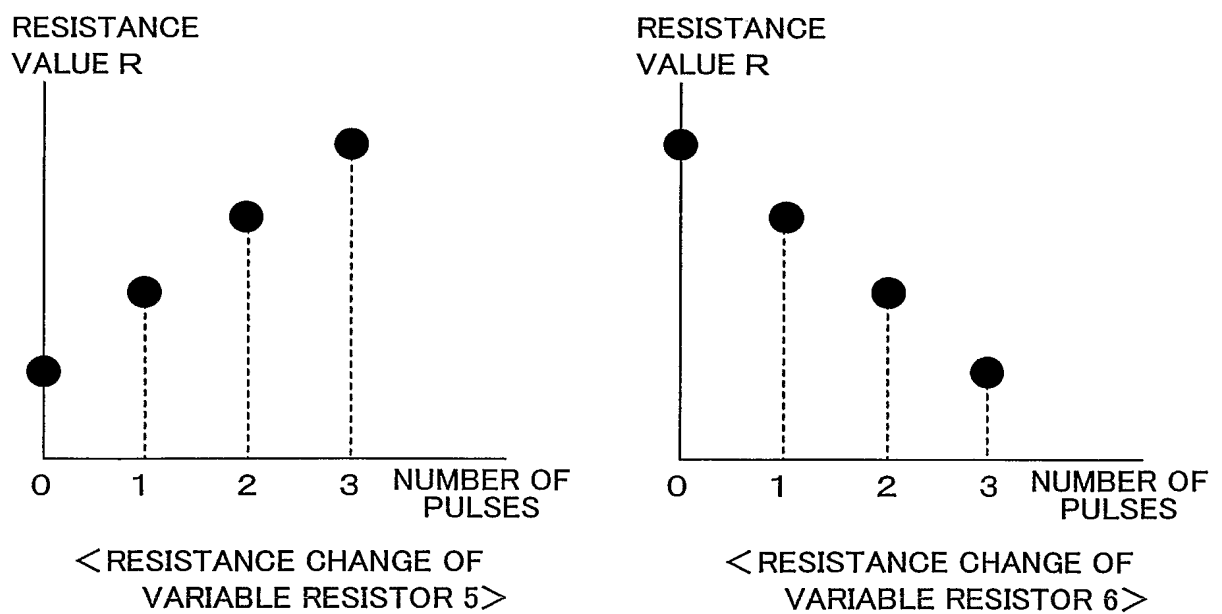
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FIG. 4

(a) RECORDING



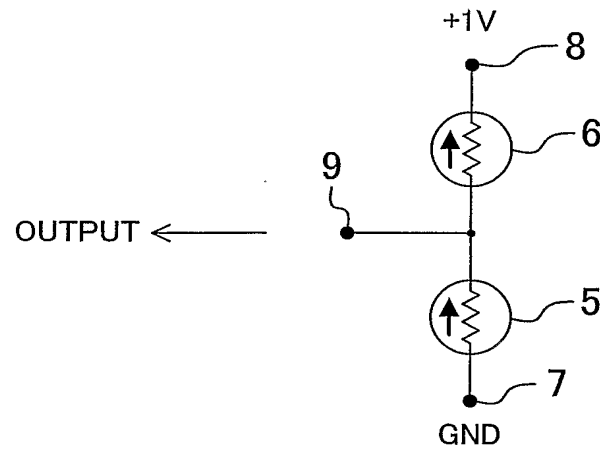
(b) RESISTANCE CHANGE OF VARIABLE RESISTOR



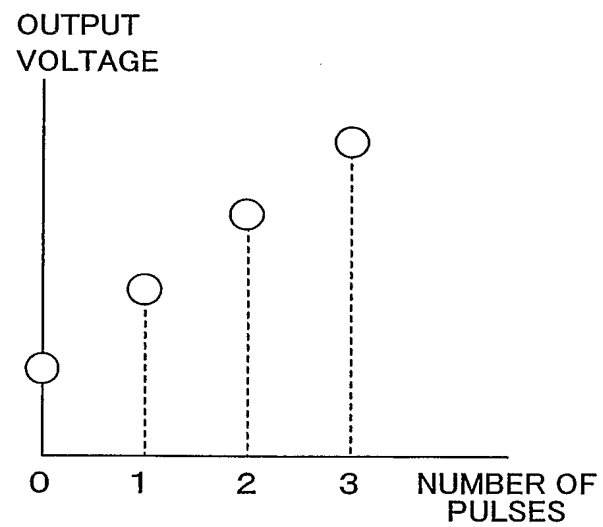
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FIG. 5

(a) REPRODUCTION



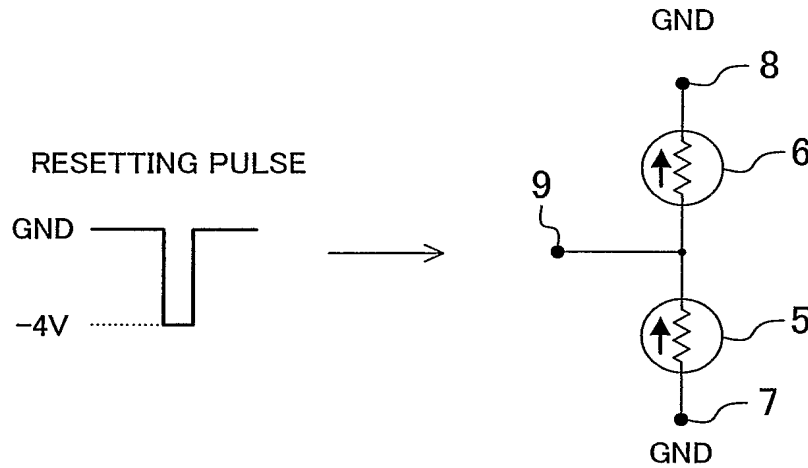
(b) REPRODUCTION OUTPUT VOLTAGE



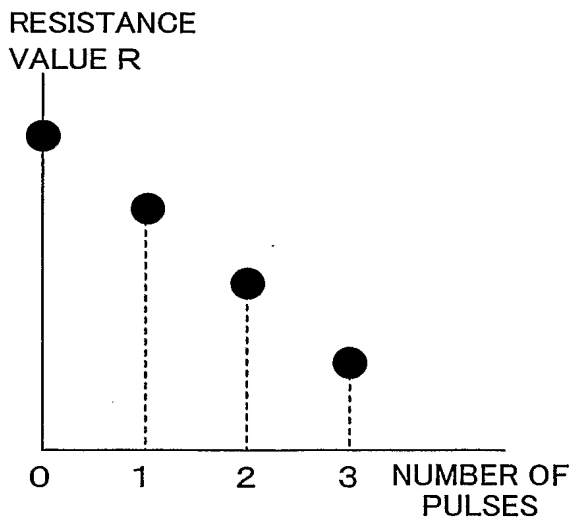
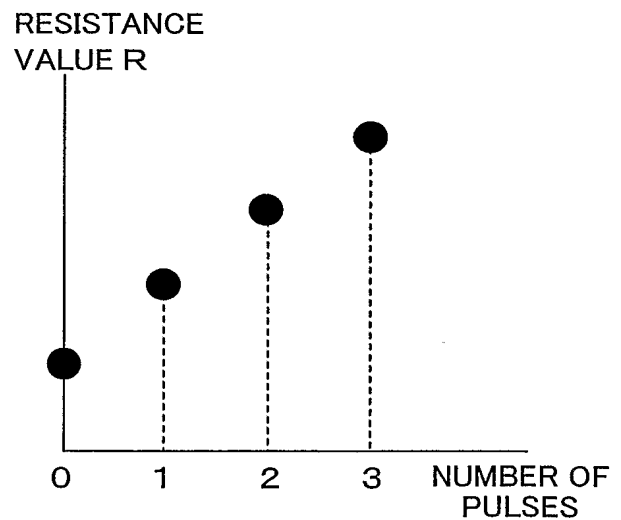
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FIG. 6

(a) RESETTING



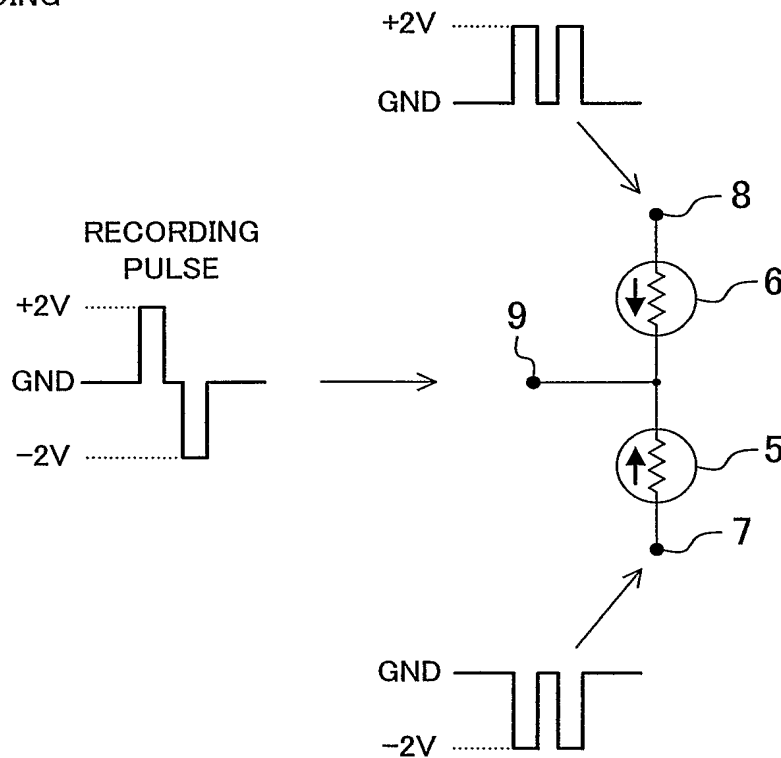
(b) RESISTANCE CHANGE OF VARIABLE RESISTOR

< RESISTANCE CHANGE OF  
VARIABLE RESISTOR 5 >< RESISTANCE CHANGE OF  
VARIABLE RESISTOR 6 >

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FIG. 7

(a) RECORDING



(b) RESISTANCE CHANGE OF VARIABLE RESISTOR

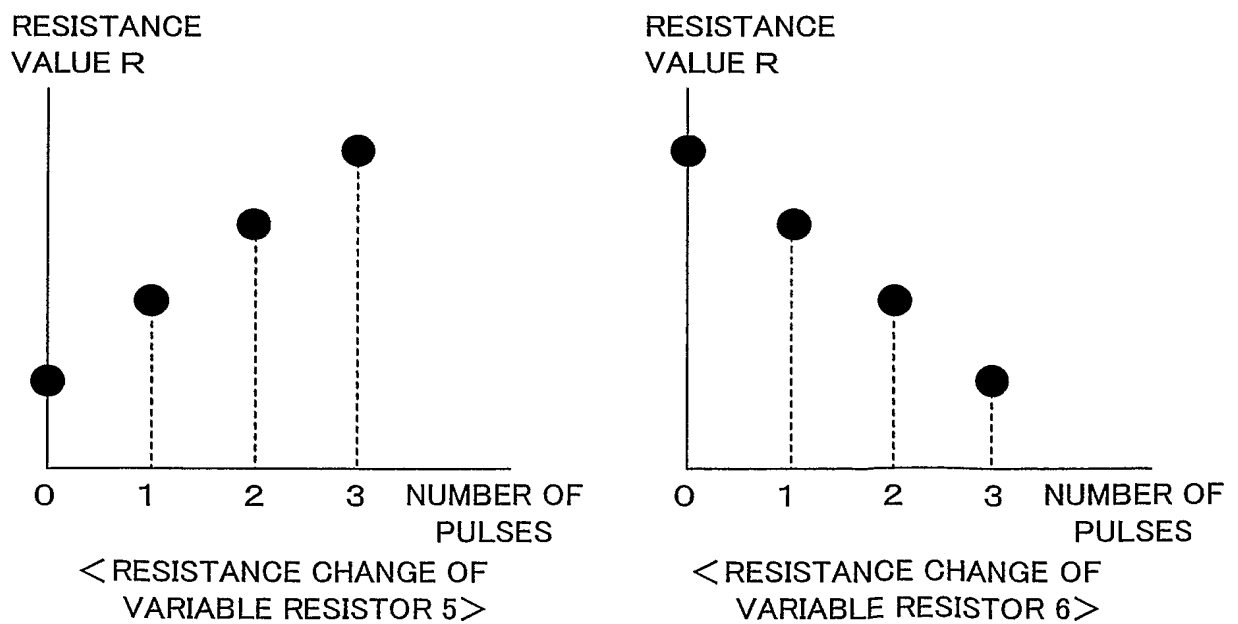


FIG. 8

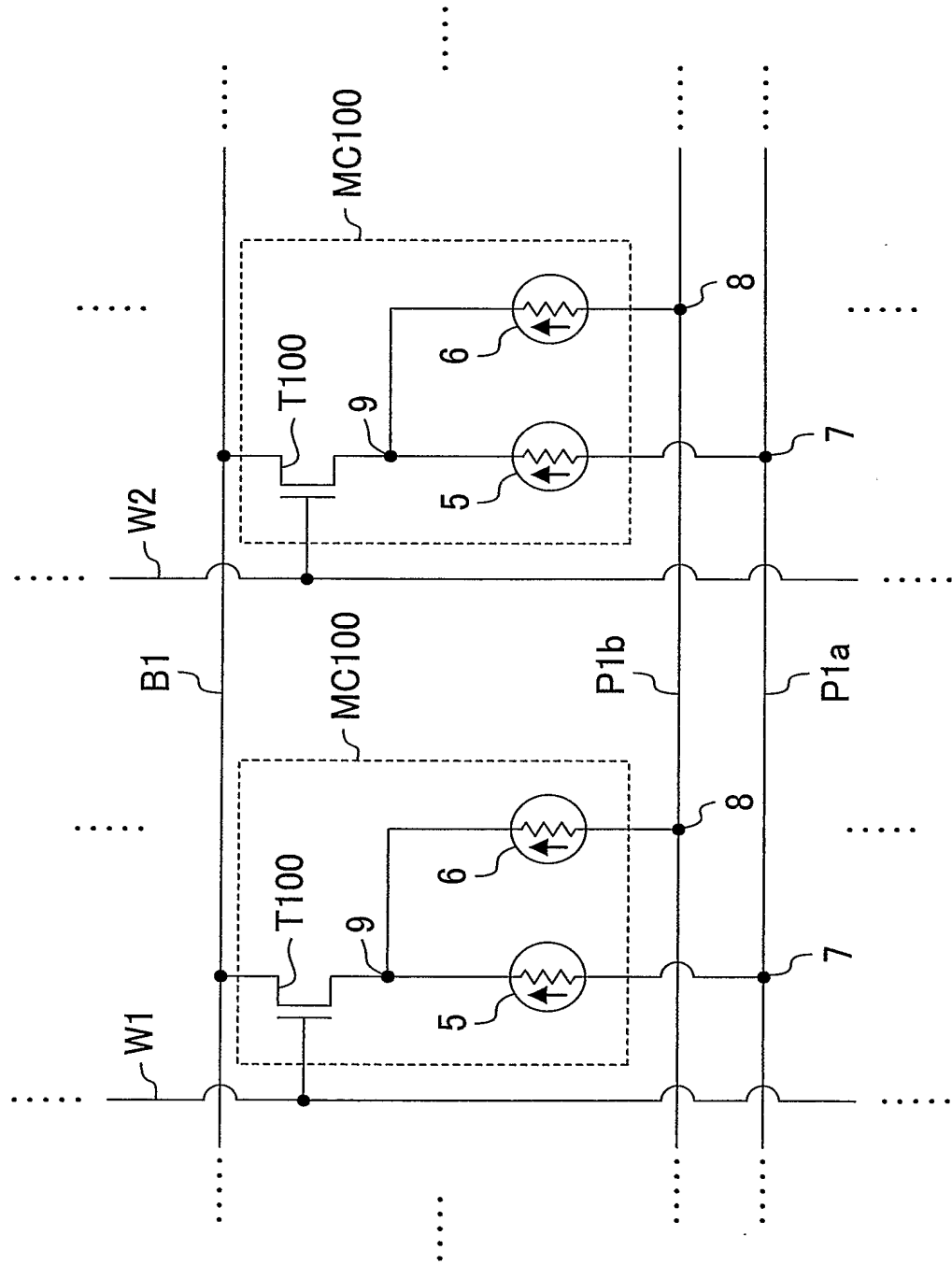




FIG. 9

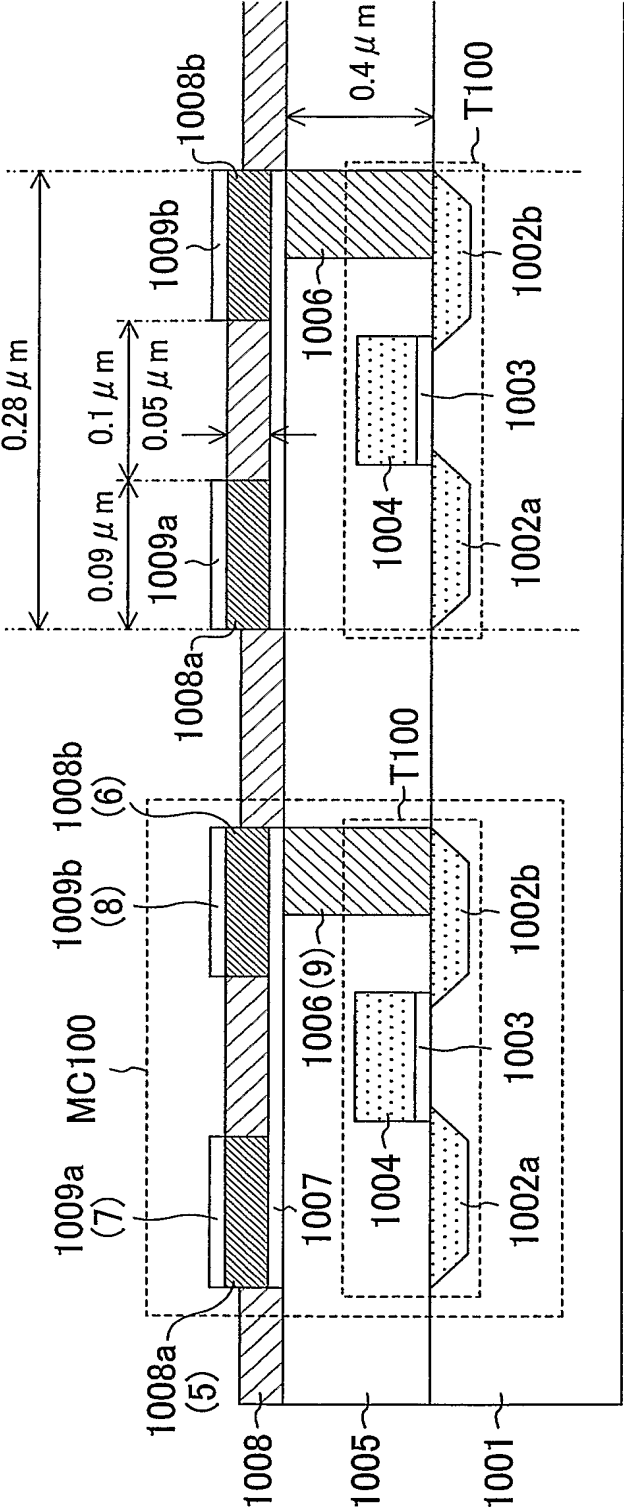
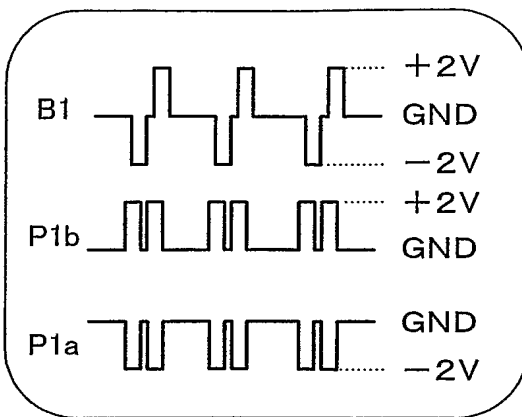


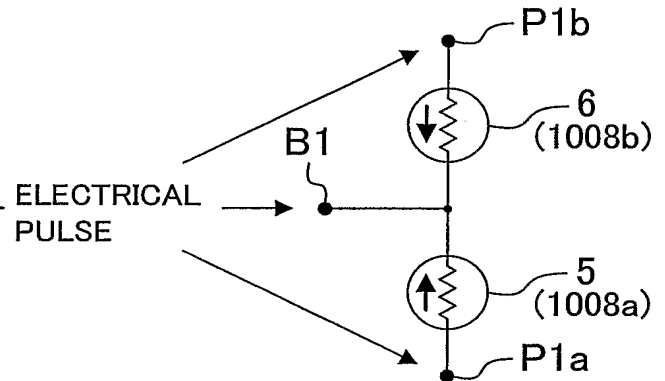
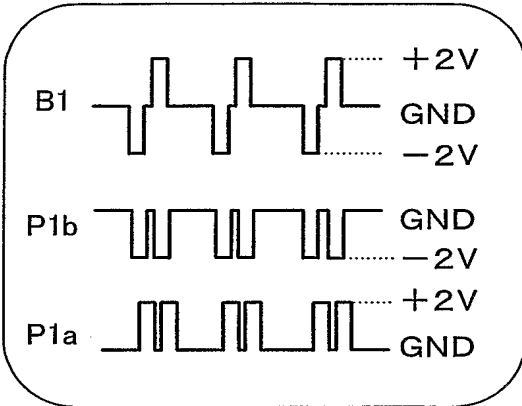
FIG. 10

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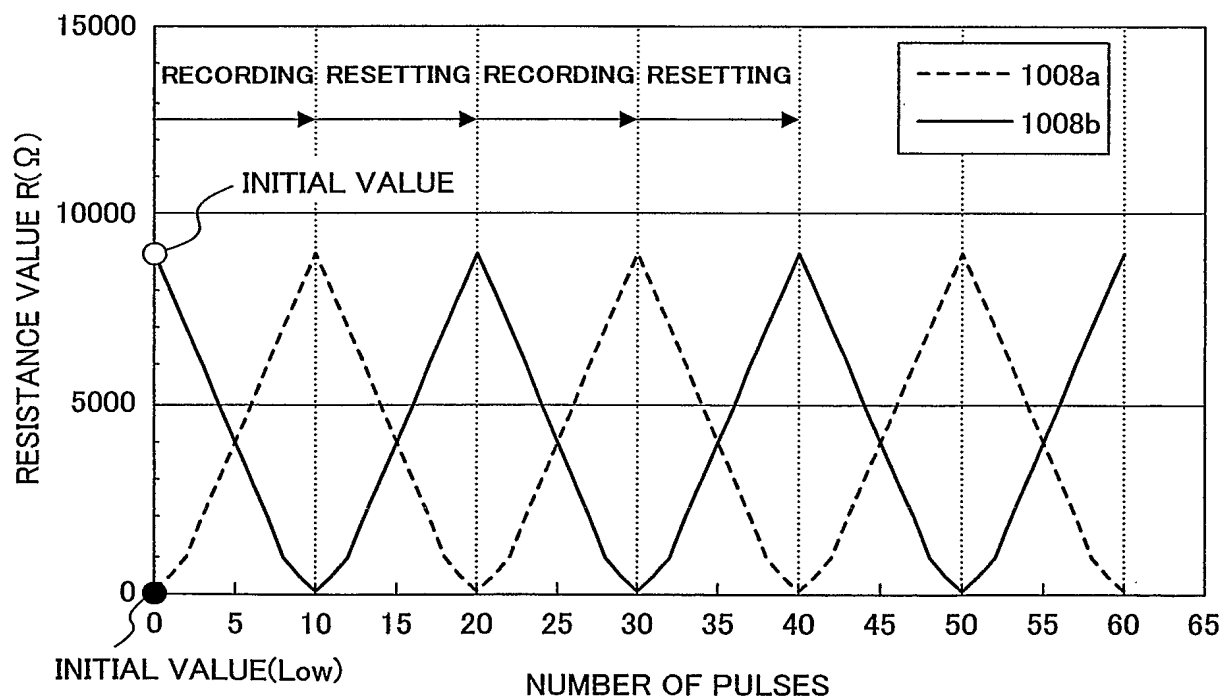
(a) RECORDING



RESETTING



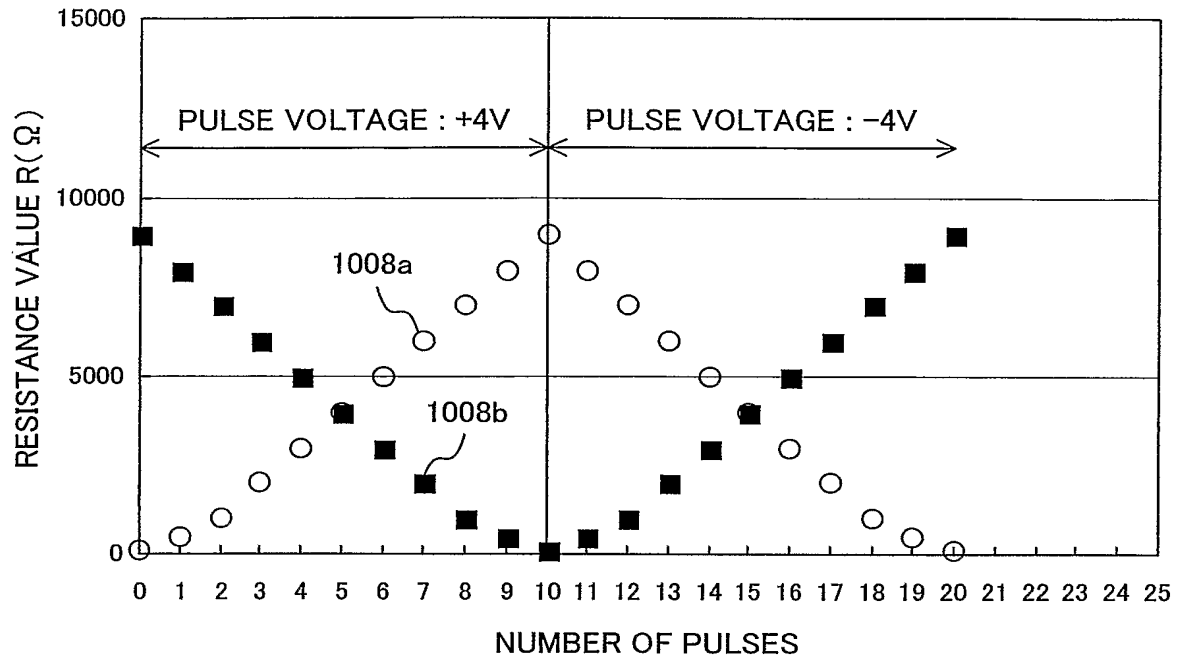
(b)



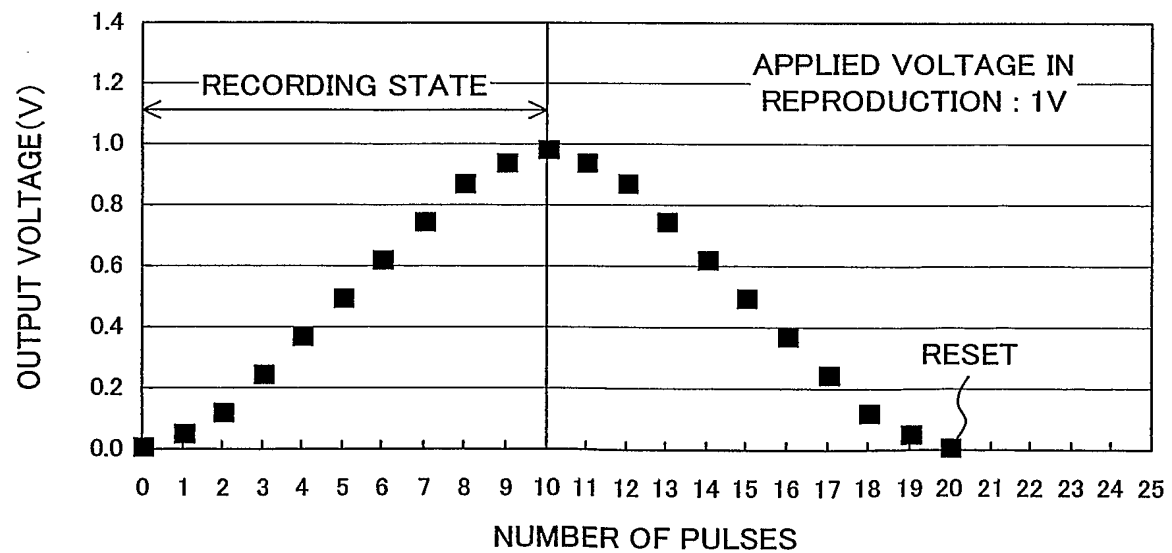
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FIG. 11

(a) RESISTANCE CHANGE WITH NUMBER OF PULSES



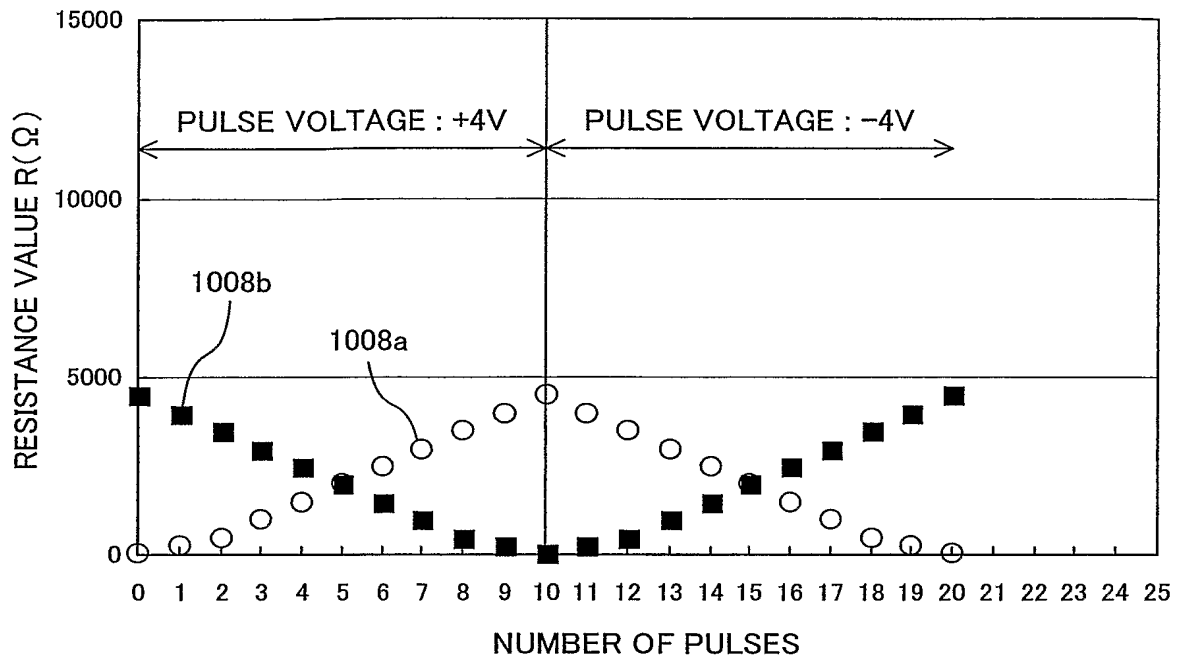
(b) OUTPUT VOLTAGE IN READOUT OF RECORDING STATE



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FIG. 12

## (a) RESISTANCE CHANGE WITH NUMBER OF PULSES



## (b) OUTPUT VOLTAGE IN READOUT OF RECORDING STATE

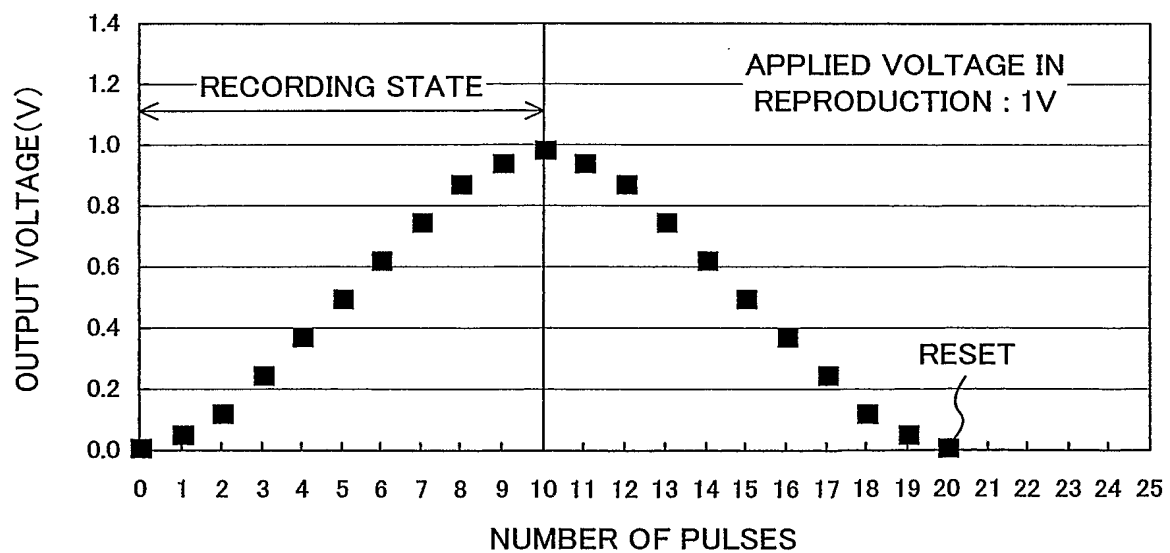


FIG. 13

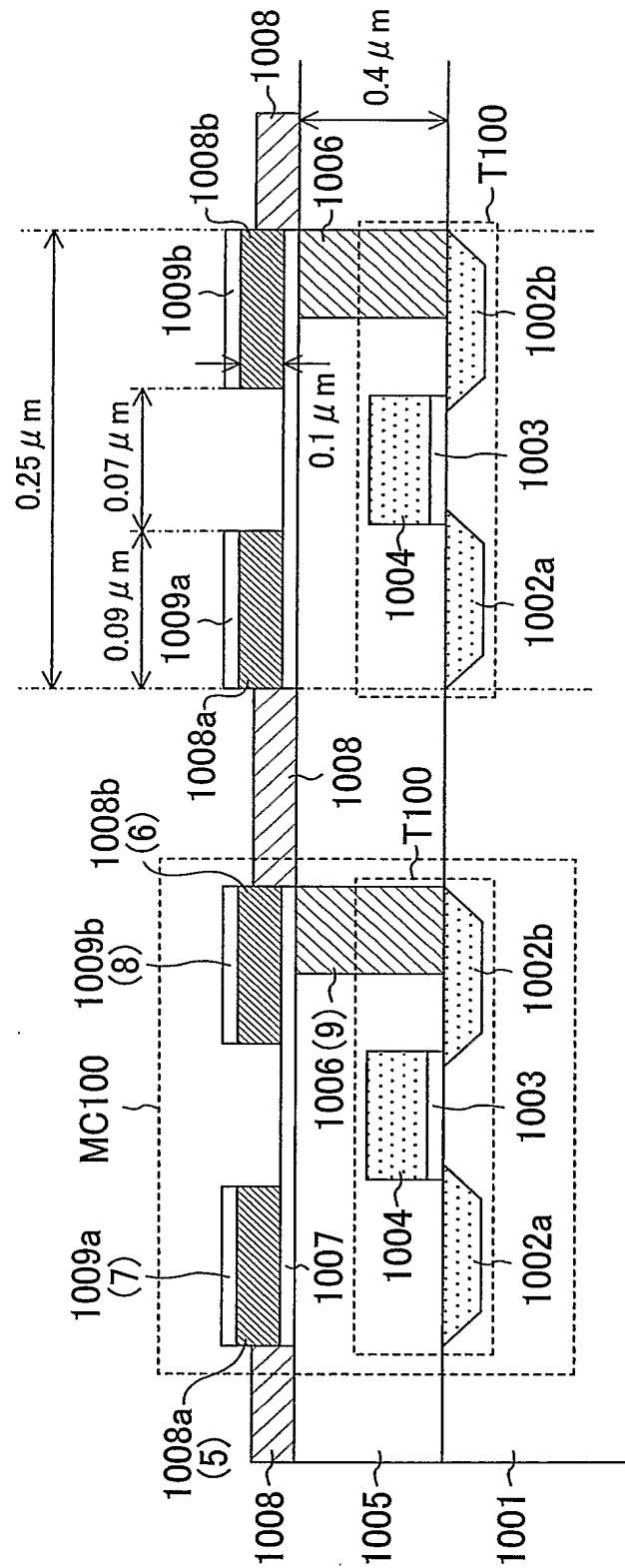
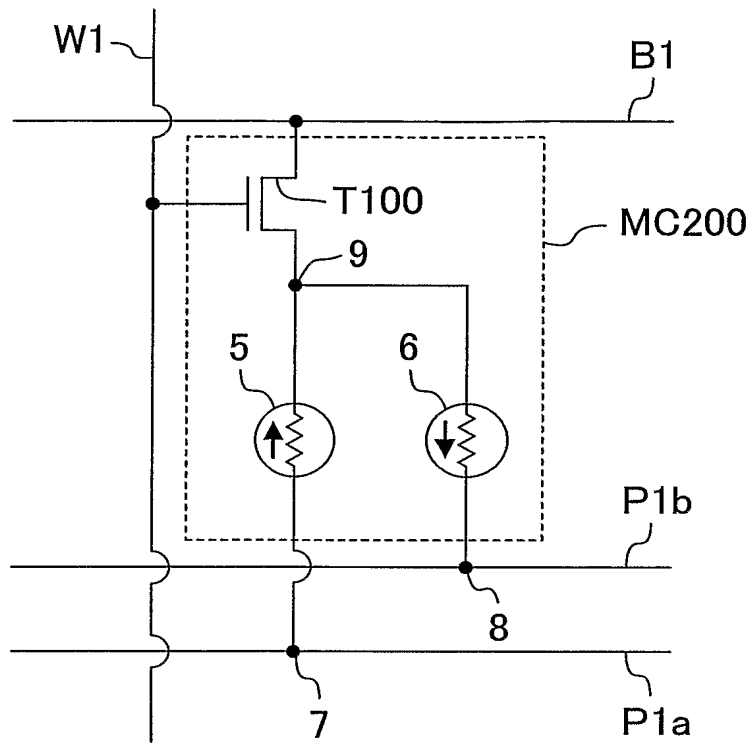


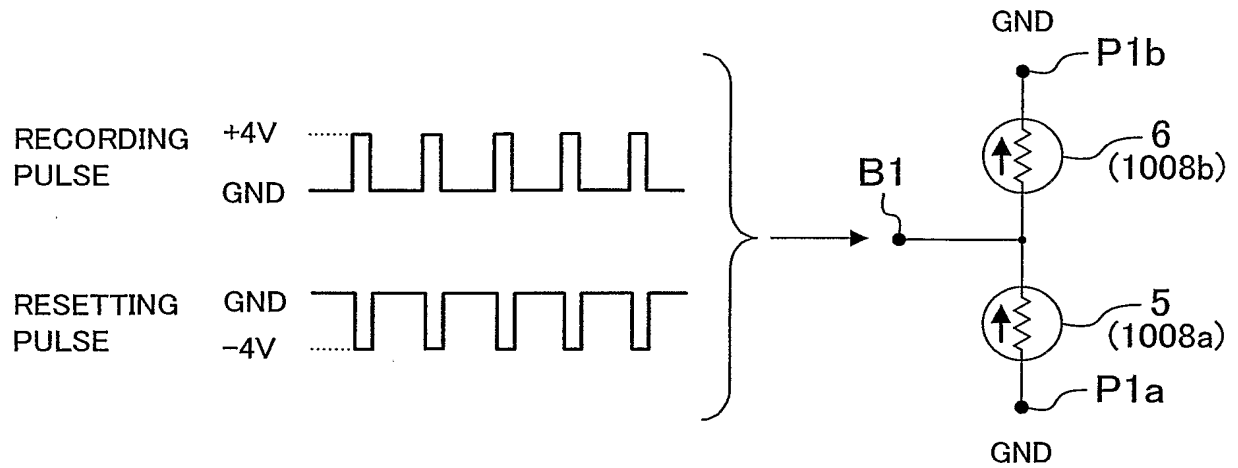
FIG. 14



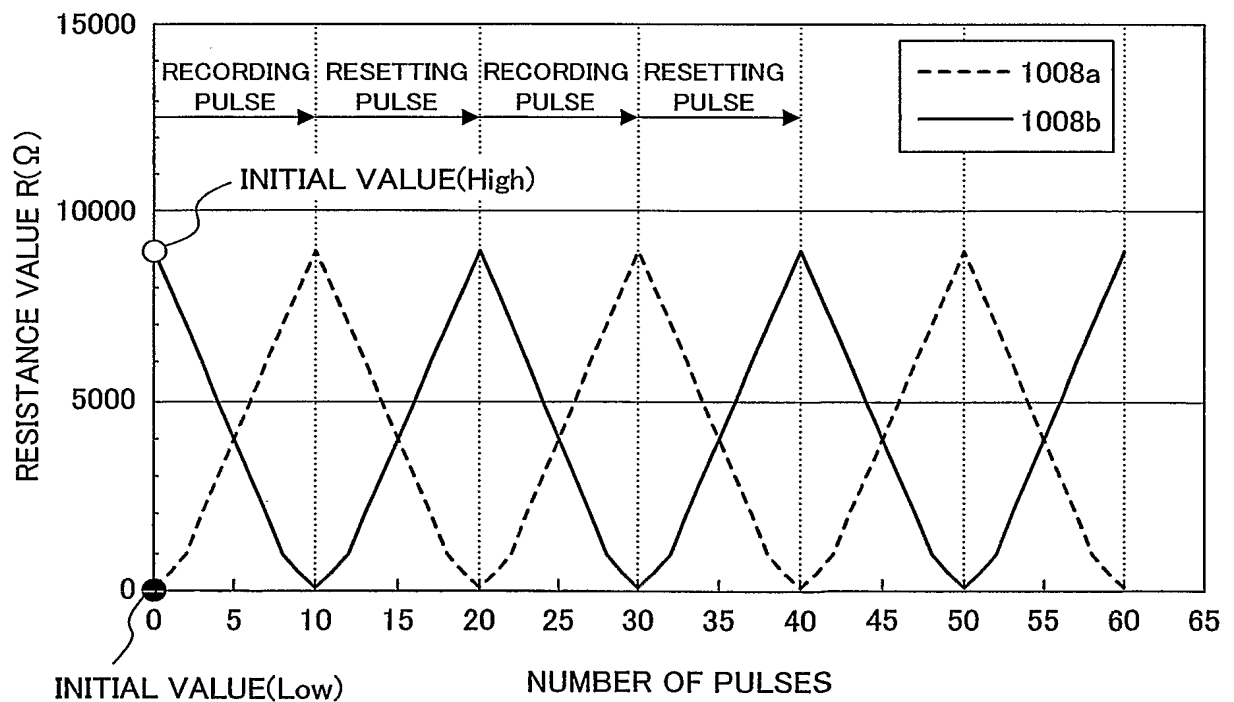
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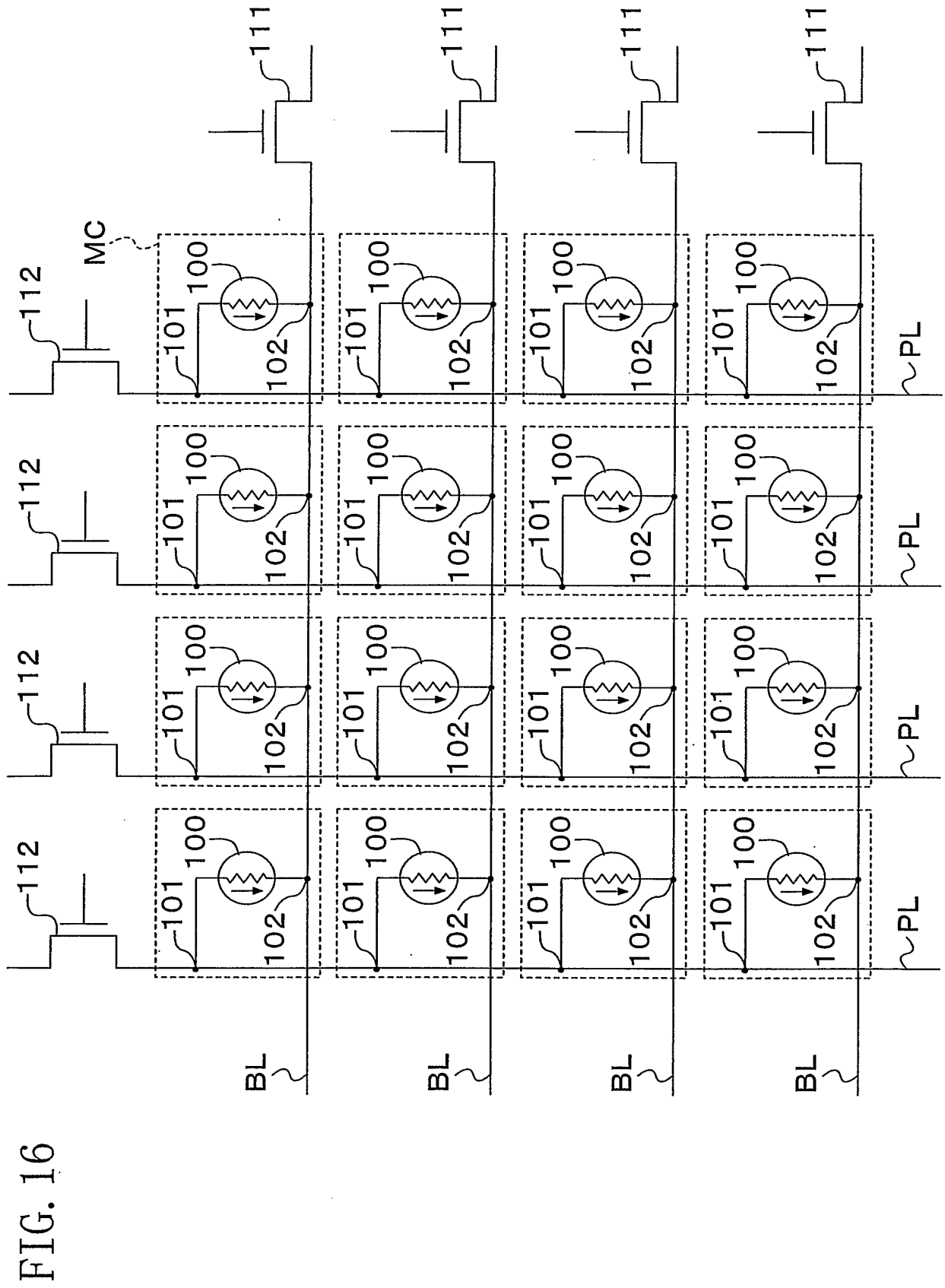
FIG. 15

(a)



(b)







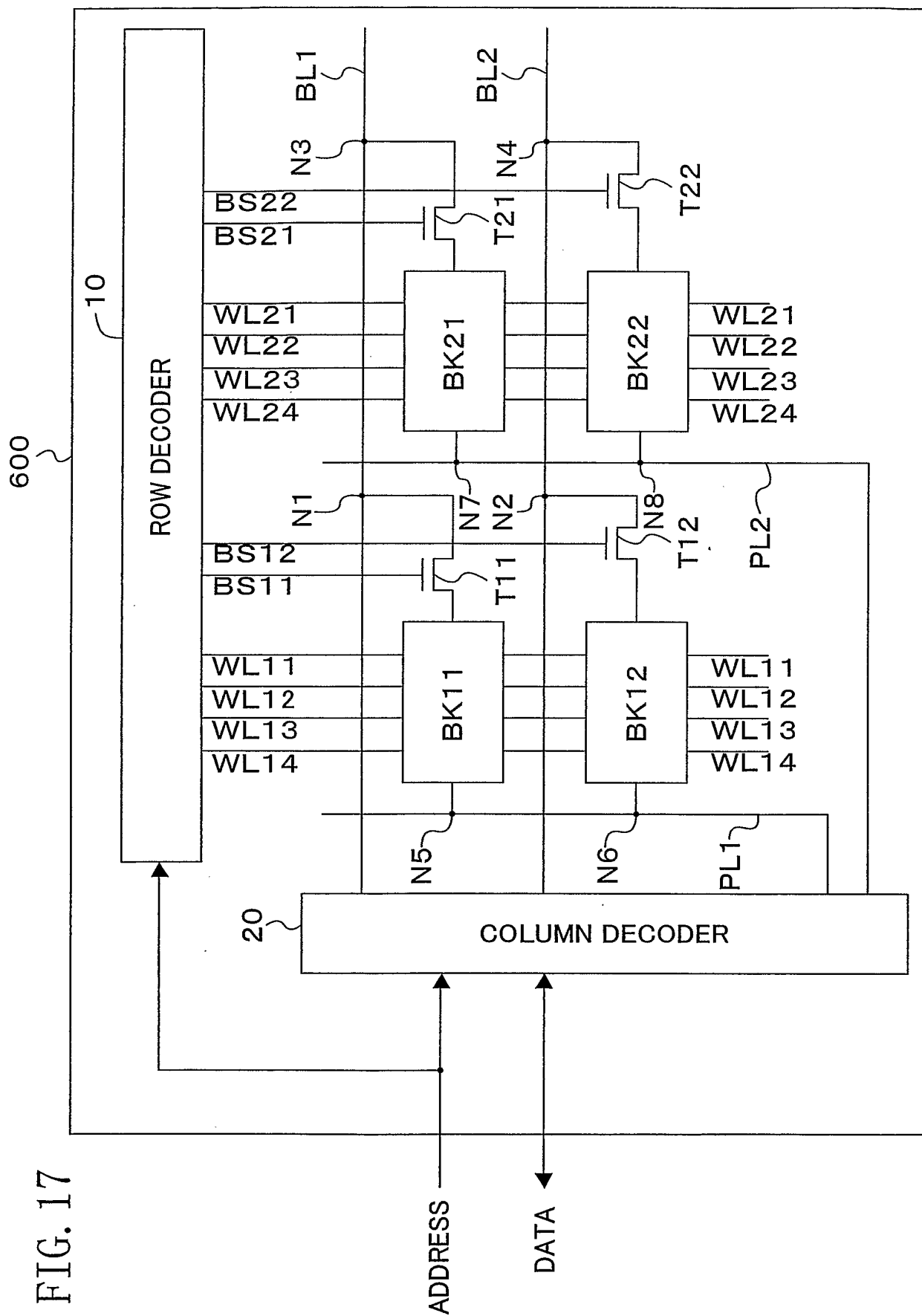


FIG. 18

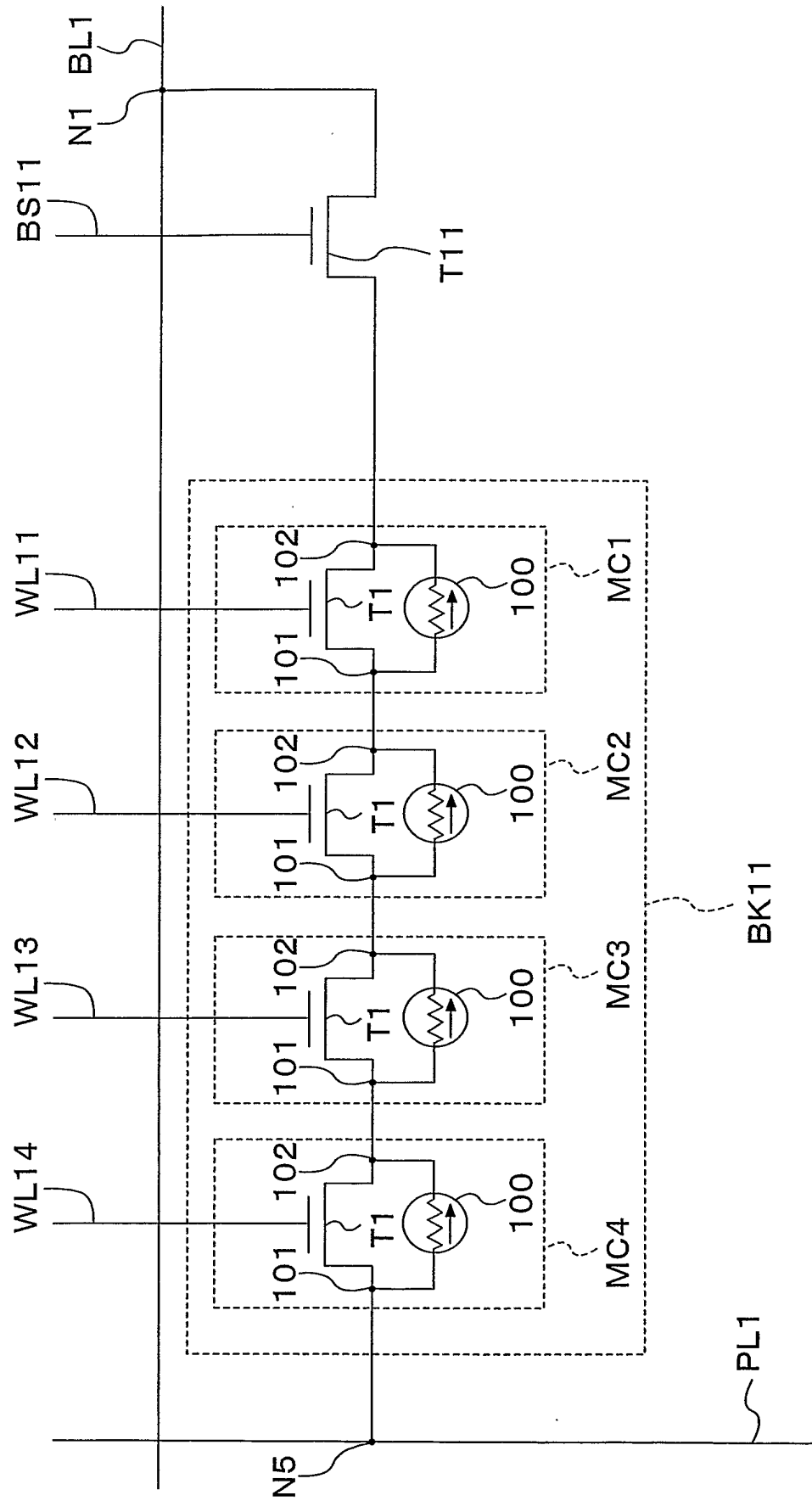
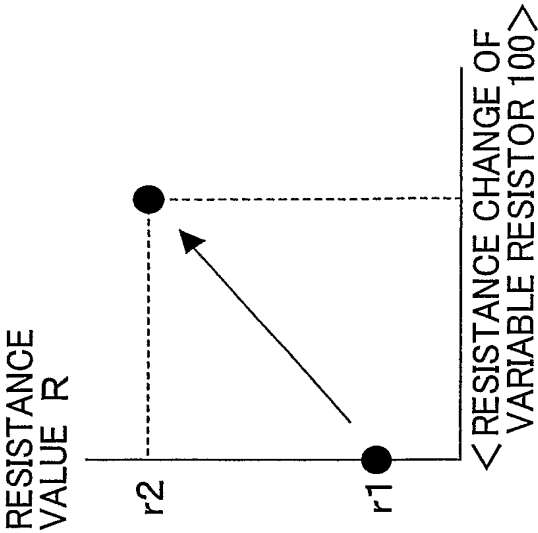
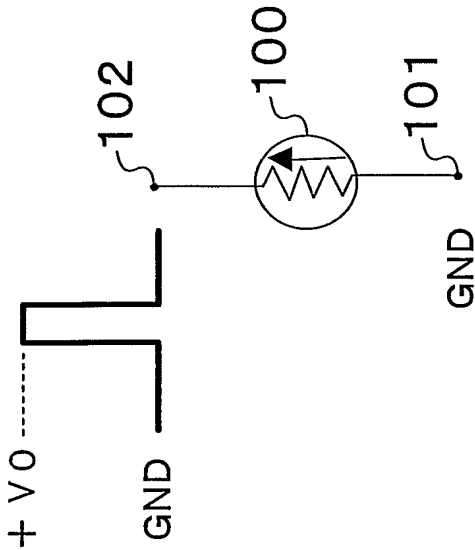
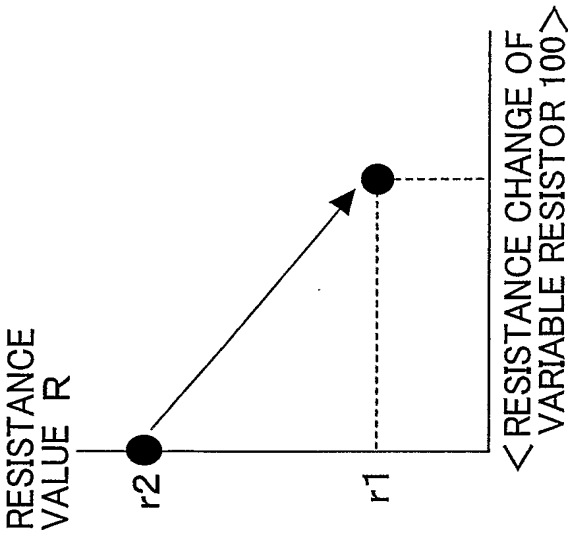
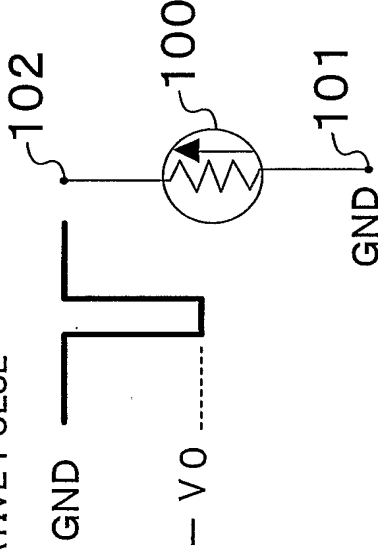


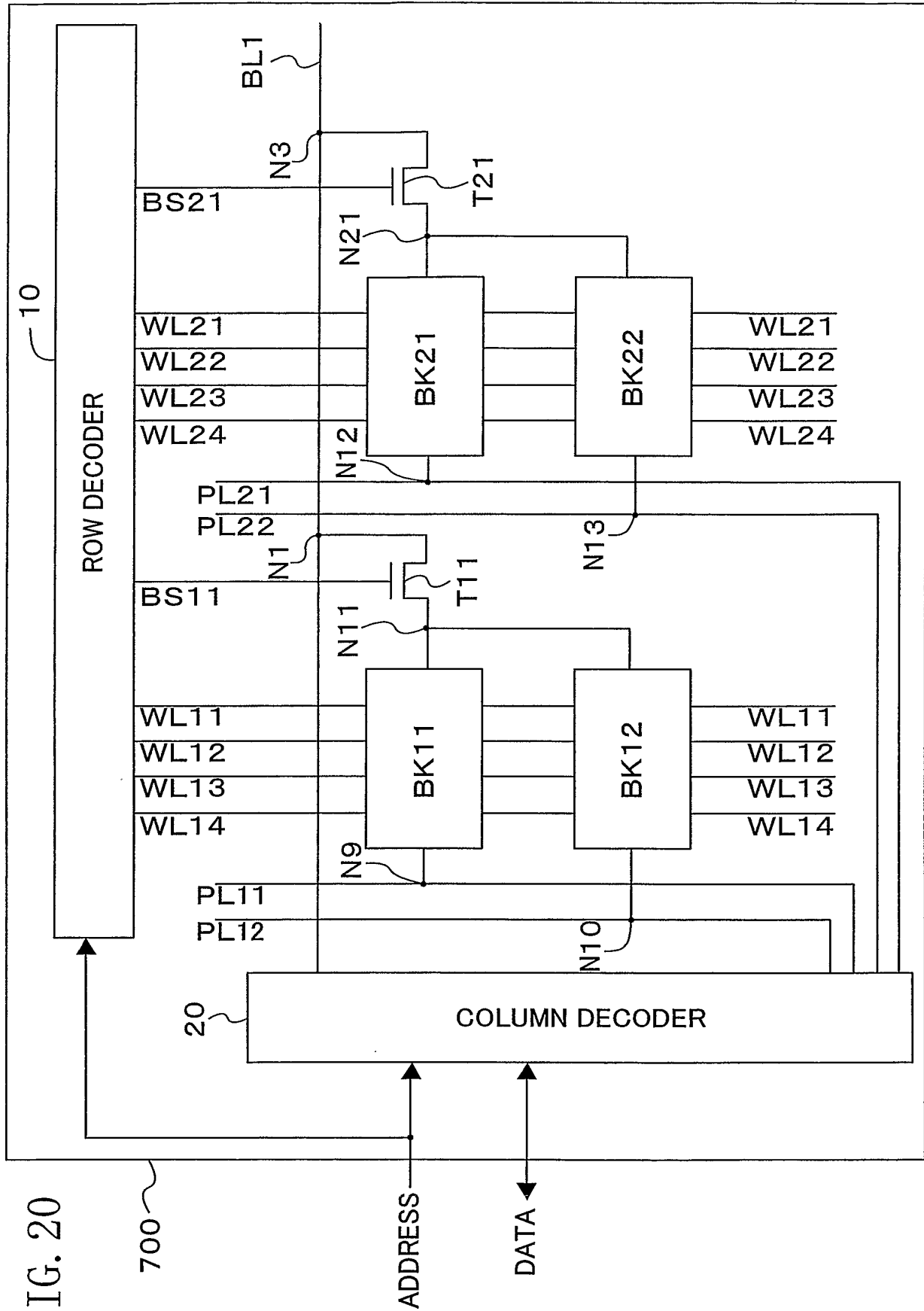
FIG. 19

(a) POSITIVE PULSE



(b) NEGATIVE PULSE





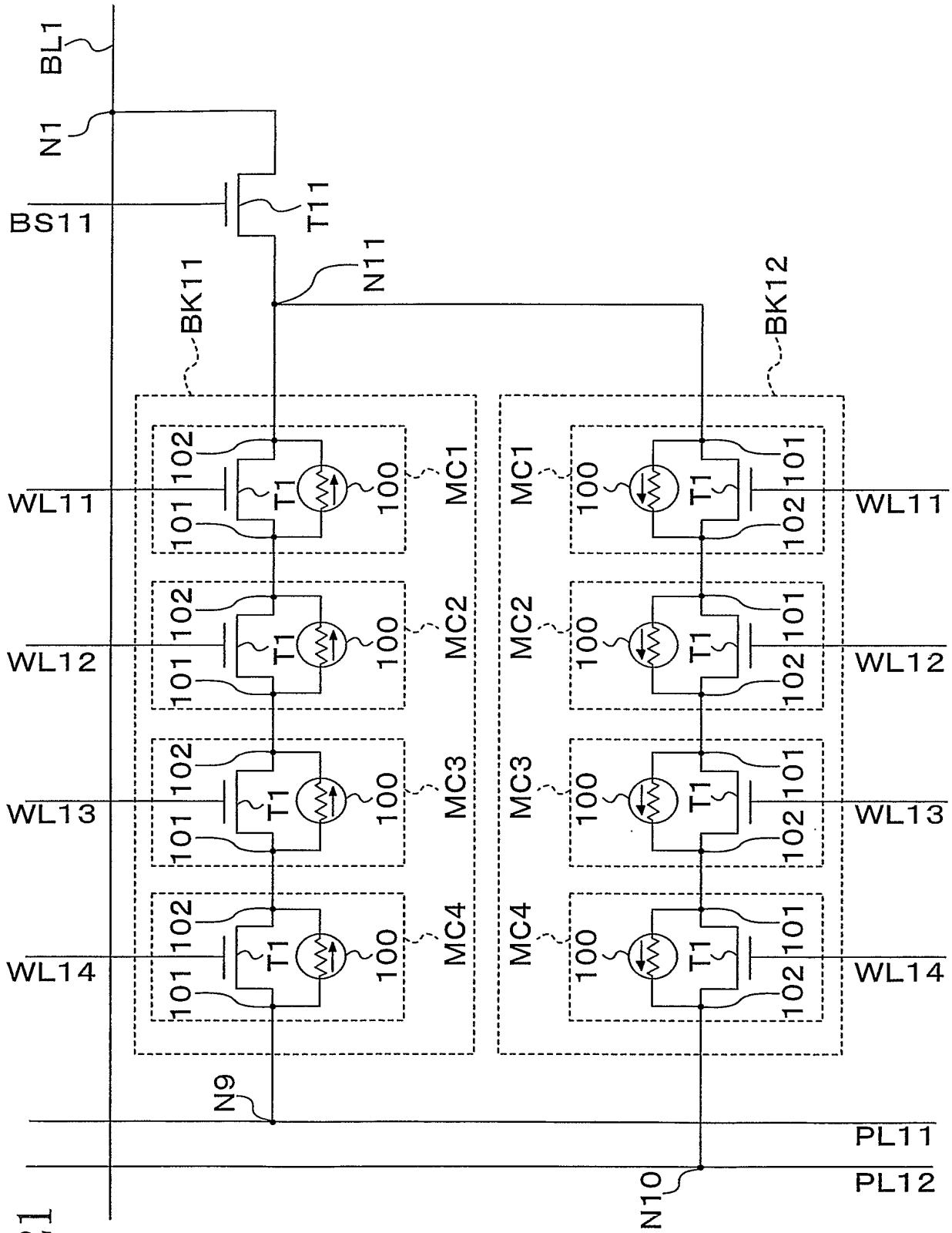
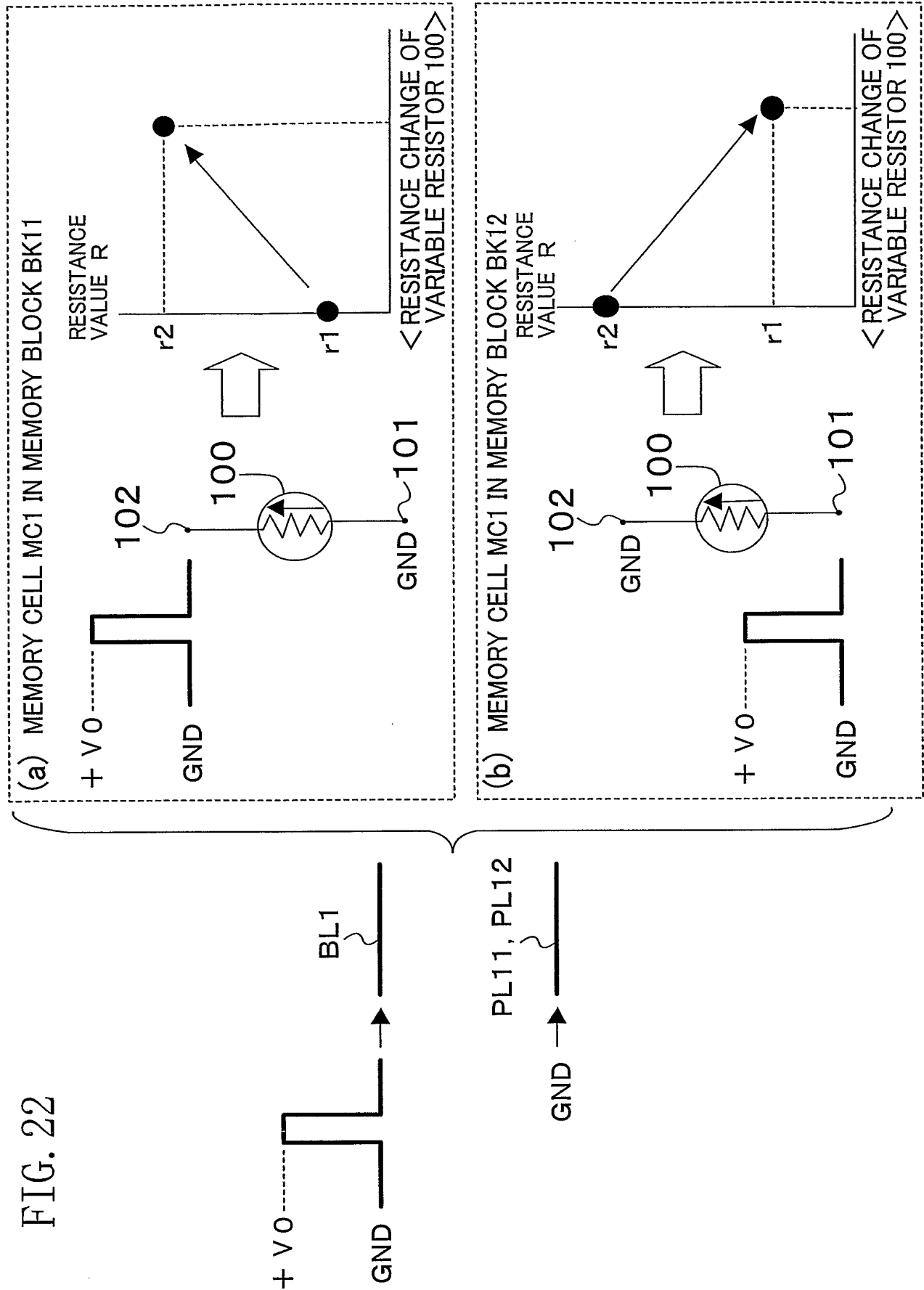


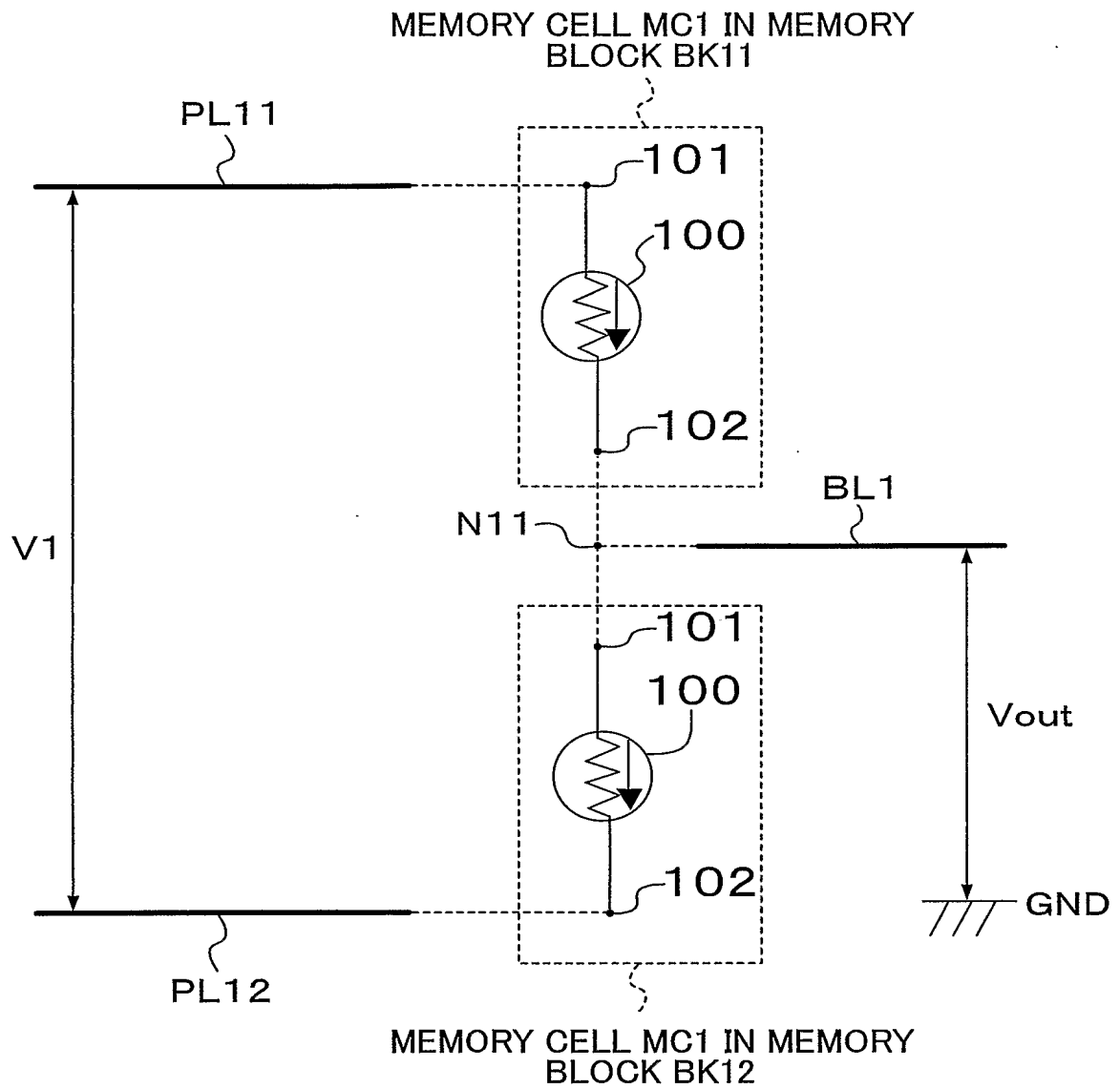
FIG. 21

FIG. 22



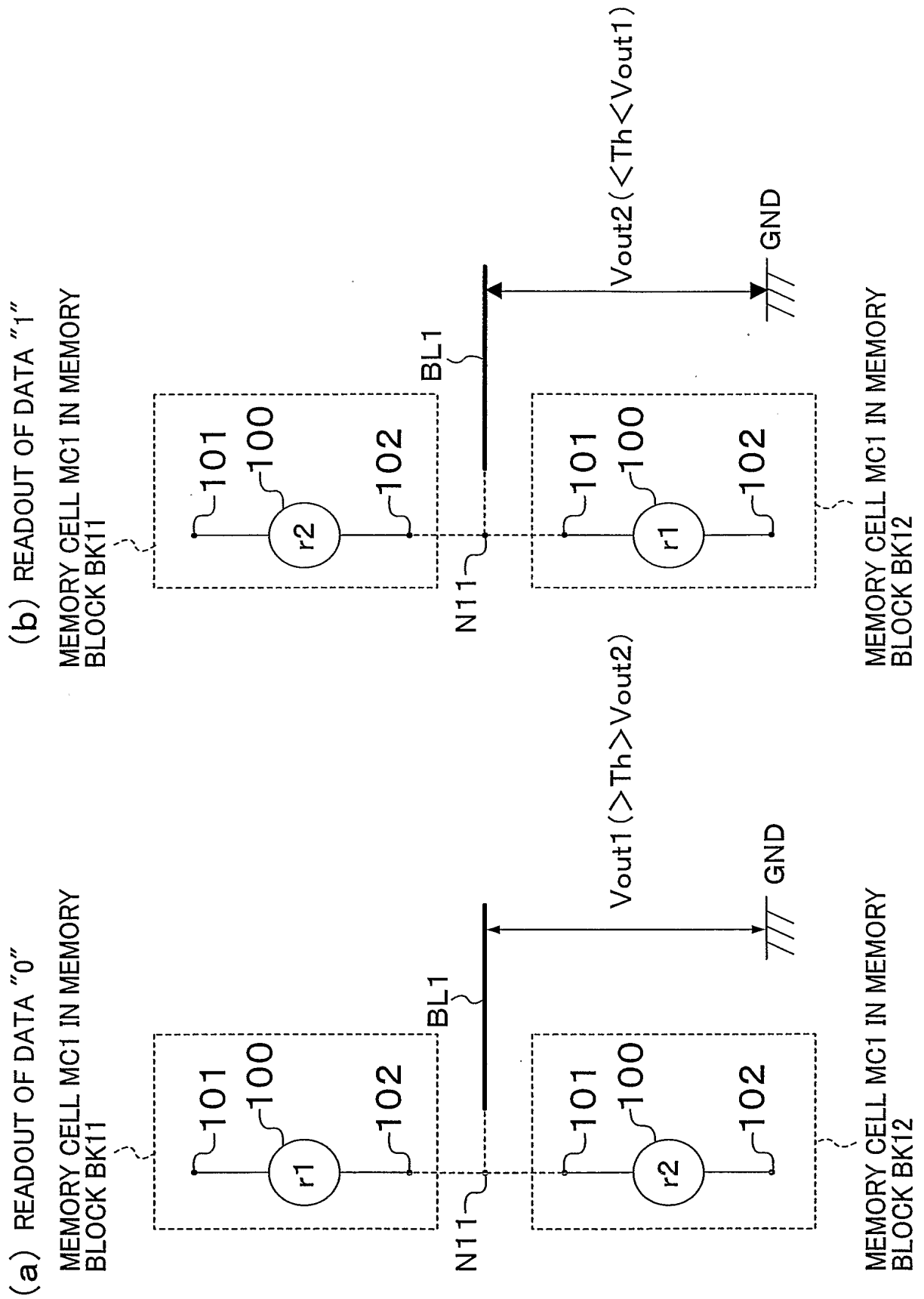
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FIG. 23

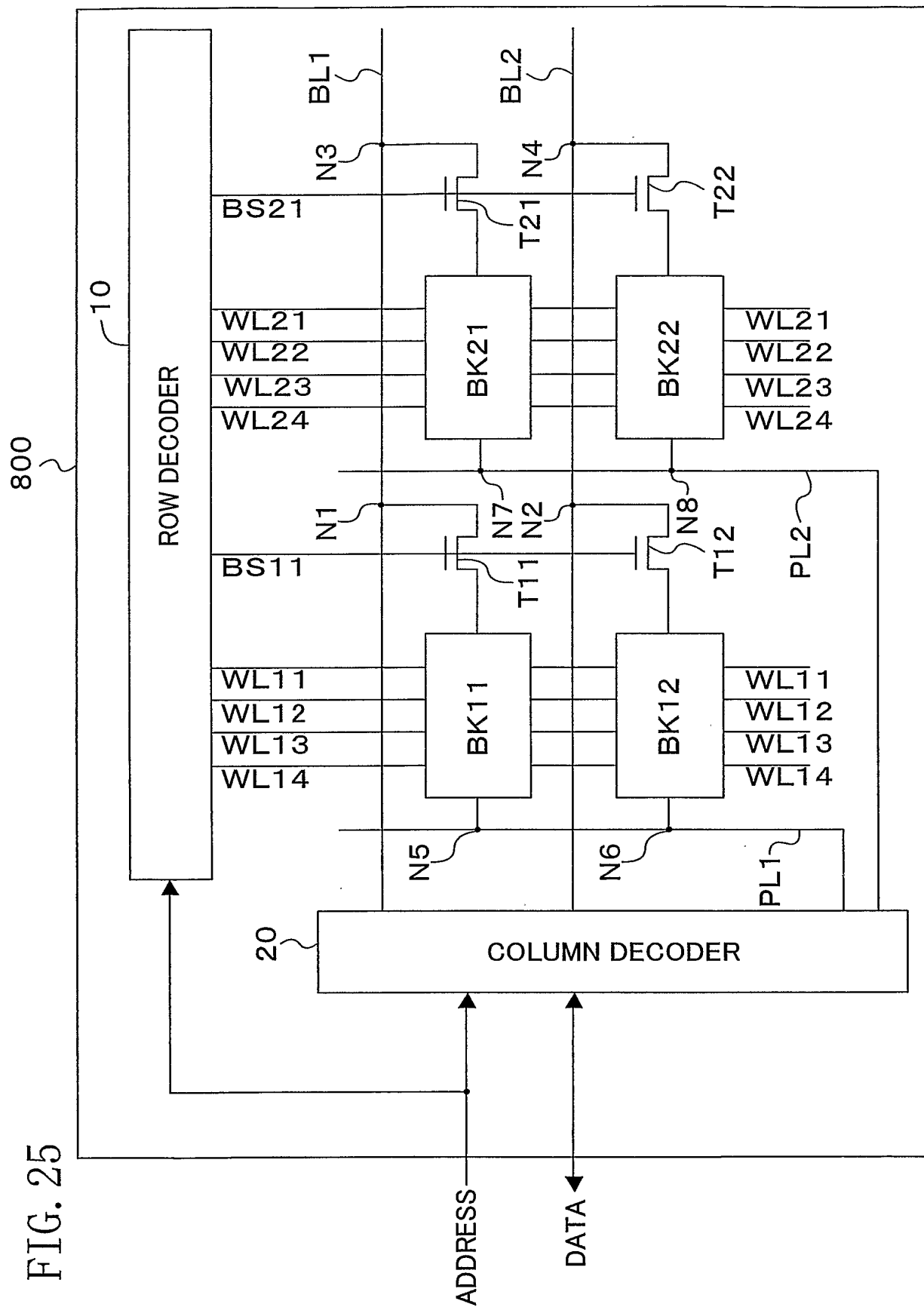


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FIG. 24







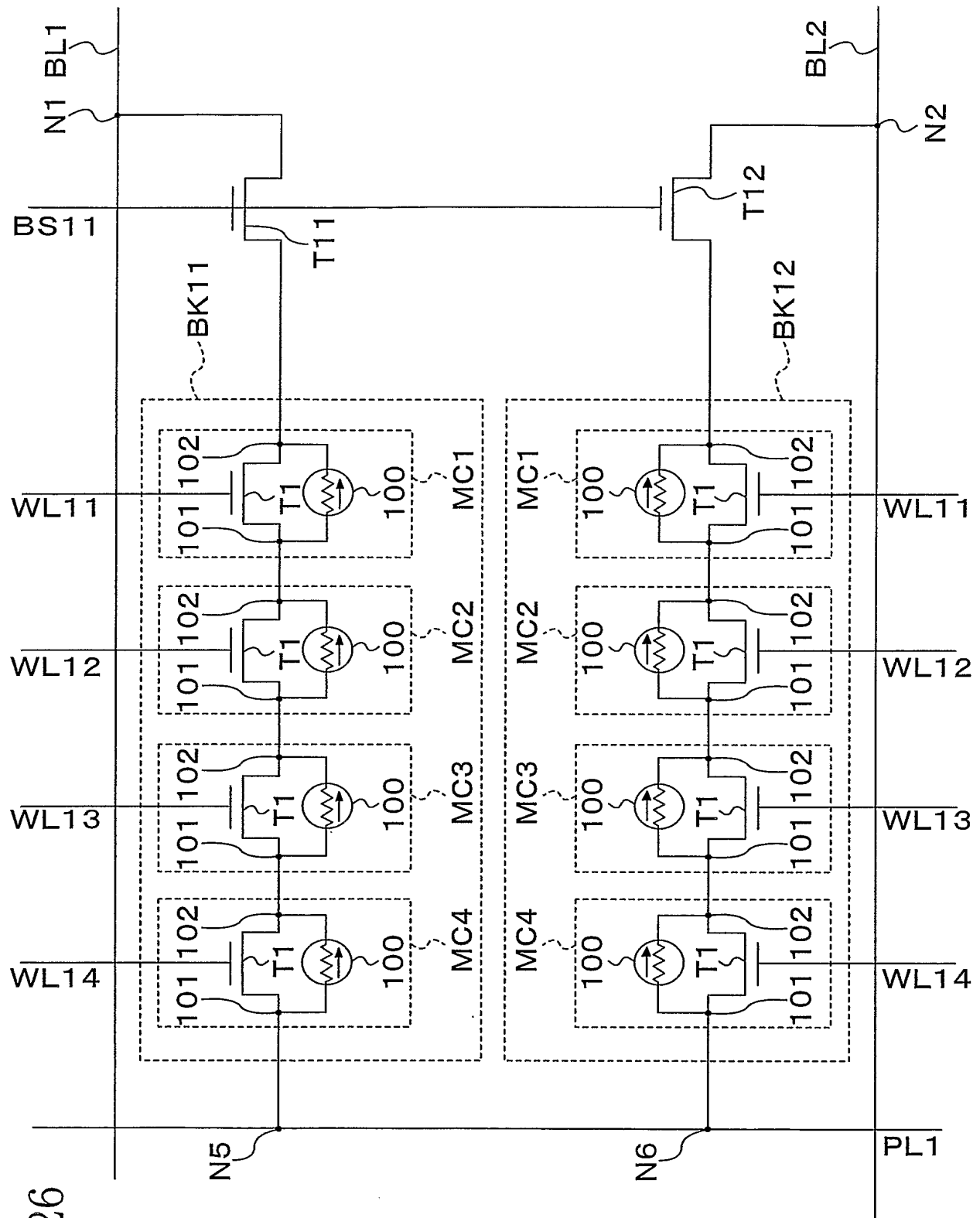


FIG. 26

FIG. 27

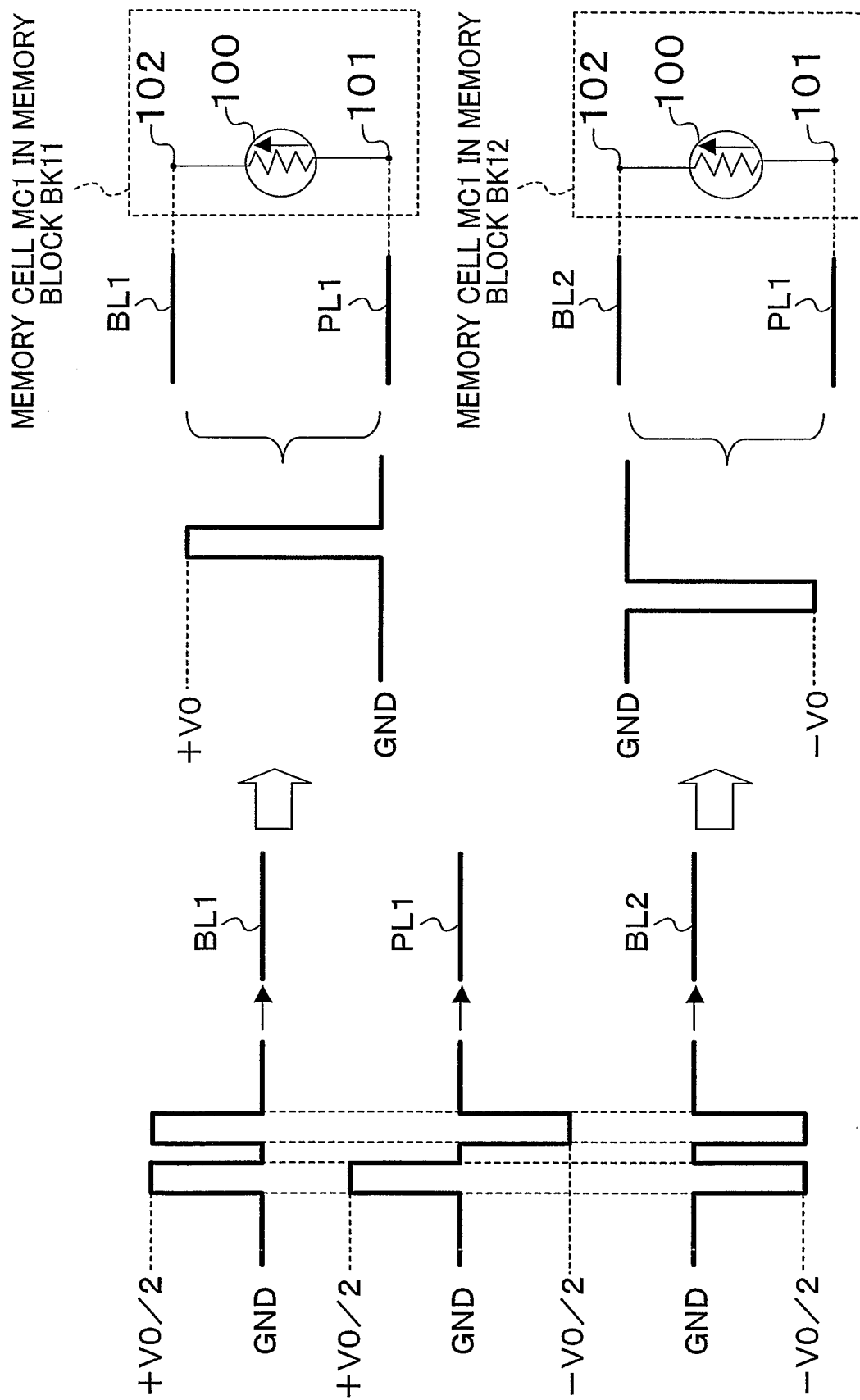
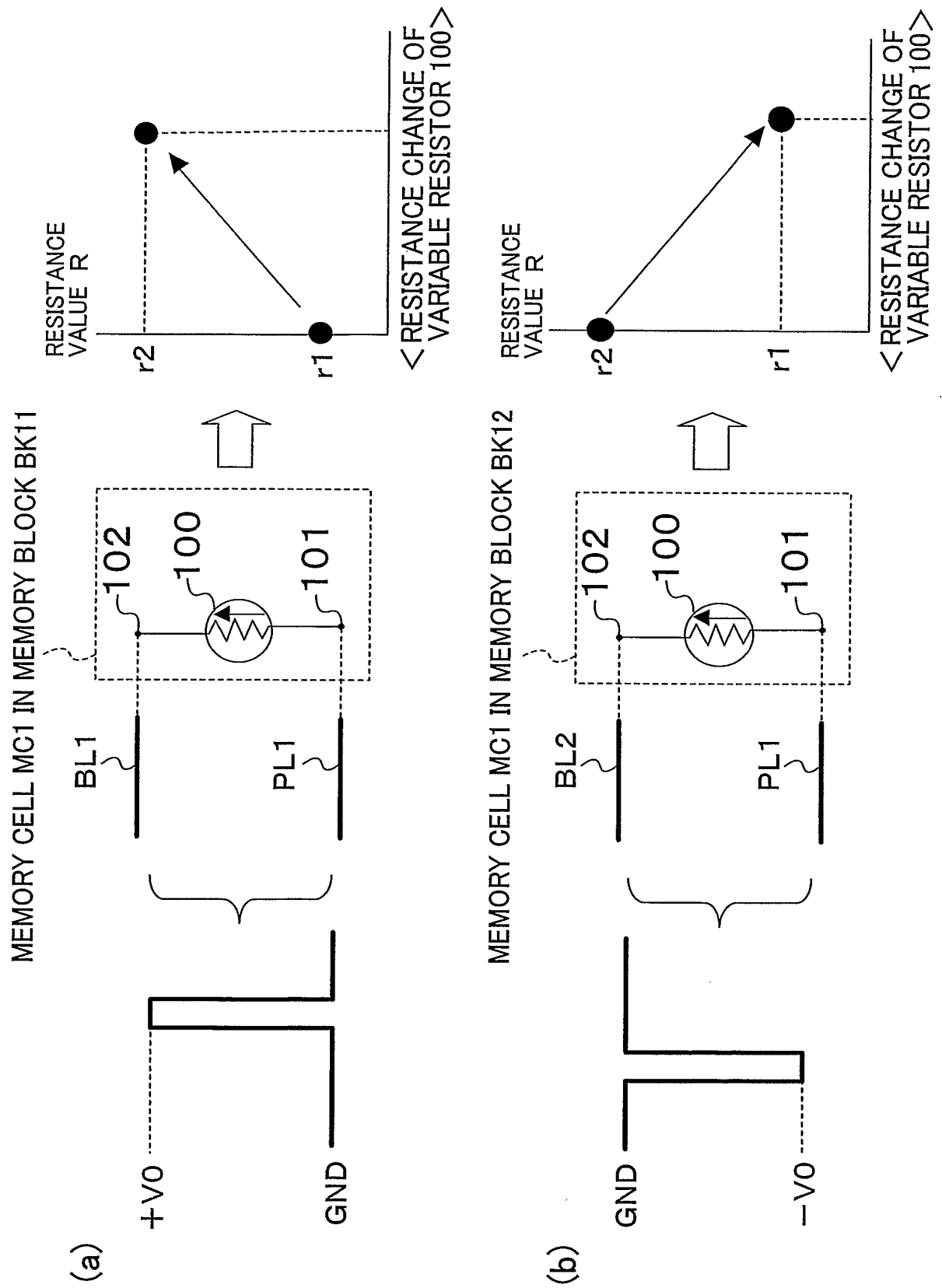
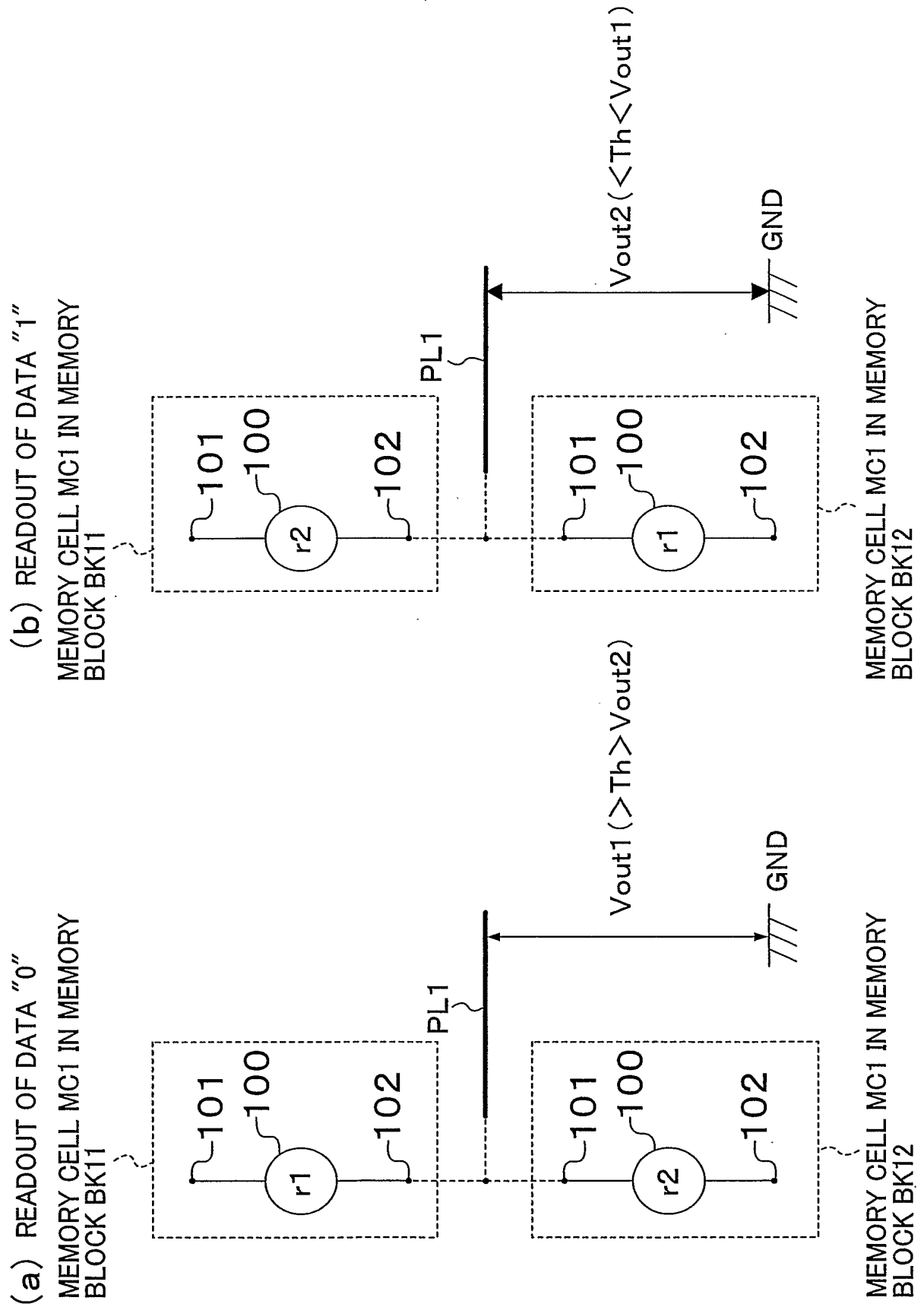


FIG. 28



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FIG. 29



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FIG. 30

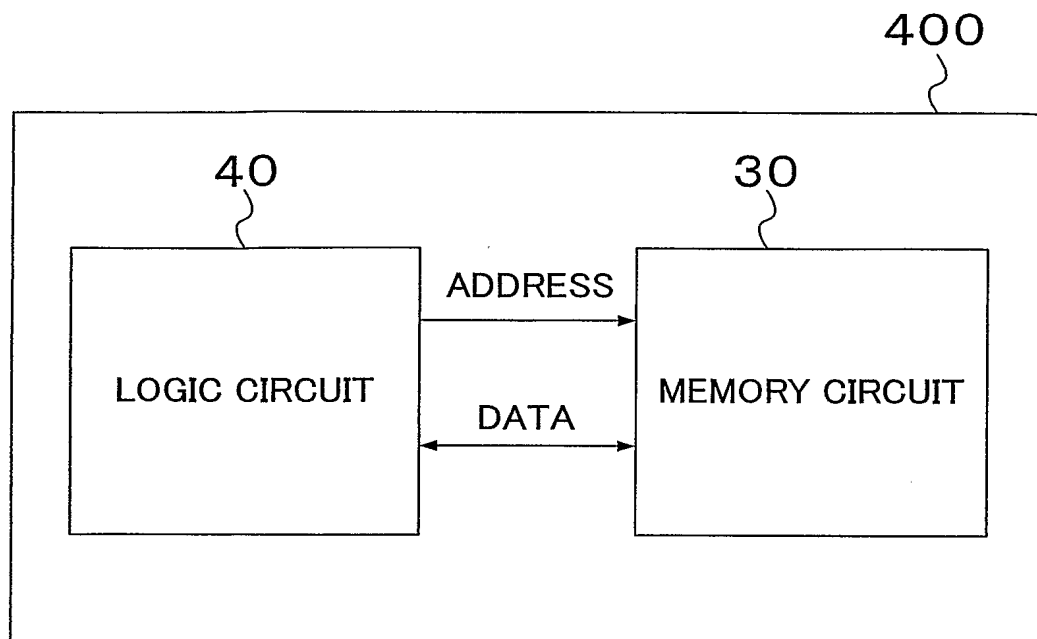


FIG. 31

